REMARKS

Claims 21, 23 - 27, 31-33 and 38-42 are pending and have been examined. By way of this response, claims 1, 23, 32, 41, and 42 have been amended. Thus, claims 21, 23 - 27, 31-33 and 38-42 are presented for examination. Applicant respectfully requests allowance of the present application in view of the foregoing amendments and following remarks.

Support for the amendments can be found throughout the specification, including, for example, paragraphs [0018], [0022] – [0023] and [0025]. No new matter has been added.

Claim Objections

Claims 21, 23 and 41 are objected to because of informalities. The present amendments render such objections moot. Accordingly, Applicant requests that the objections be withdrawn.

Rejection of Claims under 35 USC 103

Claims 21, 23 – 27 and 33 are rejected under Section 103 over *Allon* (U.S. 5539883) in view of *King* (U.S. 2004/0162945). Claims 31, 32, and 39 are rejected under Section 103 over *Allon* in view of *King* and further in view of *Liu* (US 6574664). Claim 38 is rejected under Section 103 over *Allon* in view of *King* and further in view of *Talagala* (US 2002/0162075). Claim 40 is rejected under Section 103 over *Allon* in view of *King* and further in view of *Root* (US 2002/0050737). Claims 41 and 42 are rejected under Section 103 over *Allon* in view of *Root* and further in view of *King*. Applicant traverses these rejections and requests allowance in view of the amendments and following remarks.

Independent claim 21, as amended, (and similarly independent claim 41) includes a number of features not disclosed, described, or suggested by the cited art alone or in combination.

Specifically, Claim 21 (and similarly claim 41), as amended, provides in relevant part:

> "...distributively storing the order of devices in the
> corresponding device, wherein the order of devices stored
> in each device in the network in accordance with (i) –
> (iii) comprises **the order of all of the devices including
> direct and indirect relationships between all of the
> devices**"

As set forth above, each device in the network discovers and then stores the order of **all** of the other devices. In this manner, reconfiguration will not require access to a central unit. Rather, each device has the entire configuration stored thereon by discovering the order of all devices and then storing that information locally. Thus, upon replacing a device, the new device need only identify its neighbor and then from this neighbor it can receive the stored order of all of the devices so it can reconstruct the network on a decentralized basis. Applicant submits that at least the above indicated feature of the amended claim(s) are not disclosed, described or suggested by any of *Allon, Root,* or *King,* alone or in combination with each other or with the other cited references.

Allon is directed to load balancing of network by maintaining in each computer information regarding current load on the computer and load on some other computers in the network. Logical links are generated between the computer and other computers in the network. The generation of <u>the logical links can be achieved by assigning a rank to each computer</u>, no two computers being assigned the same rank, each computer being logically linked to one computer of lower rank and a number of computers of higher rank to form the tree structure. The tree structure can be maintained if a computer fails, or is otherwise inoperative, <u>by **generating new logical links** between each of the computers</u> lower down the tree to which the failed computer was linked and other computers, which have capacity for accepting new downward links.

King is directed to an apparatus that includes a hierarchy of field replaceable units (FRUs). Each FRU in the hierarchy may have a number of subsidiary FRUs, each of a particular type. <u>A FRU includes stored FRU identity data, relating to or describing the FRU itself, and</u>

subsidiary FRU data that is indicative of at least the number and type of any subsidiary FRUs that may be immediately below the in the hierarchy.

Root is directed to integrated train electrical and pneumatic brakes. The integrating of the computer controlled braking systems with the electrical controlled pneumatic brake system is achieved by interconnecting these systems as nodes on a common network.

Without conceding the propriety of the combination of references, Applicant submits that the independent claims contain features that are not disclosed or suggested in the cited art, alone or in combination.

Specifically, the independent claims, as amended, include having each device itself determine from its connected node **the order of all of the devices** in the network (because each node has a predetermined hierarchy of connections). Each device then stores the order of all of the devices locally therein. Then, upon replacing a device in the network, the replacement device can receive from a neighboring device the order of all of the devices to allow reconstruction of the network on a decentralized basis using the stored order of all of the devices received from the neighbor. This is unlike *King* in which subsidiary (downstream) data is stored. This is also unlike *Allon* in which new links are generated lower down the tree. In both of these references, reconstruction of the network on a decentralized basis using the stored order of all of the devices stored locally in each device is not performed or suggested. The remaining references (including *Root*) fail to remedy the shortcomings of *Allon and King.*

As set forth above, none of the cited art, alone or in combination, includes this feature of having each device itself determine from its connected node the order of all of the devices in the network and then store the order of all of the devices locally therein. Then, upon replacing a device in the network, the replacement device receives from a neighboring device the order of all of the devices to allow reconstruction of the network on a decentralized basis using the stored order of all of the devices received from the neighbor. Accordingly, Applicant submits that the independent claims are not obvious in view thereof.

Applicant therefore respectfully requests that the Office reconsider and withdraw the rejection of independent claims 21 and 41 for at least the above-stated reasons.

Dependent Claims, including all 35 USC 103(a) Rejections

The dependent claims incorporate all of the subject matter of their respective independent claims and add additional subject matter, which makes them a fortiori and independently patentable over the art of record. Accordingly, Applicant respectfully requests that the outstanding rejections of the dependent claims be reconsidered and withdrawn.

Based on at least the above-noted distinctions it is urged that the claims are fully distinguished over the cited art. Allowance of the claims is requested.

Conclusion

The Commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including the fees specified in 37 C.F.R. §§ 1.16(c), 1.17(a)(1) and 1.20(d), or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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